

Sequence Listing

SEQ ID NO. 1 - The full-length nucleotide sequence of the spike (S) gene of SARS CoV, clone 12 of 2774 strain

RNA linear

ORGANISM: SARS coronavirus 2774 strain

Viruses; ssRNA positive-strand viruses, no DNA stage;
Nidovirales; Coronaviridae; Coronavirus.

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1   atgtttatTT tcttattatt tcttactctc actagtggta gtgacctga cgggtgcacc
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 cttgctgcaa 3710 3711 gtttgatgag gatgactctg agccagttct caagggtgct aaattacatt
 acaca 3765

SEQ ID NO. 2 - The full-length amino acid sequence of the spike (S)
 gene of SARS CoV, clone 12 of 2774 strain
 Amino acid

1 MFIFLLFLTL TSGSDLDRCT TFDDVQAPNY TQHTSSMRGV YYPDEIFRSD TLYLTQDLSL
 PFYSNVTGFH 70
 71 TINHTFGNPF IPFKDGIYFA ATEKSNVVRG WVFGSTMNNK SQSVIIINNS TNVVIRACNF
 ELCDNPFPAV 140
 141 SKPMGTQHT MIFDNAFNCT FEYISDAFSL DVSEKSGNFK HLREFVFKNK DGFLYVYKGY
 QPIDVVRDLP 210
 211 SGFNTLKPFI KLPLGINITN FRILTAFSP AQDIWGTSAA AYFVGDLKPT TFMLKYDENG
 TITDAVDCSQ 280
 281 NPLAELKCSV KSFEIDKGIY QTSNFRVVPV GDVVRFPNIT NLCPFGEVFN ATKFPSVYAW
 ERKKISNCVA 350 351 DYSVLYNSTV FSTFKCYGVS ATKLNLCFS NVYADSFVVK GDDVRQIAPG
 QTGVIADYNY KLPDDFMGCV 420 421 LAWNTRNIDA TSTGNVYKY RYL RHGKLRP FERDISNVFP
 SPDGKPCTPP ALNCYWPLND YGFYTTTGIG 490 491 YQPYRVVLS FELNAPATV CGPKLSTDLI
 KNQCVNFNEN GLTGTGVLTP SSKRFQPFQ FGRDVSDFTD 560 561 SVRDPKTSEI LDISPCSFEG
 VSVITPGTNA SSEVAVLYQD VNCTDVSTAI HADQLTPAWR IYSTGNVVFQ 630 631 TQAGCLIGAE
 HVDTSYECDI PIGAGICASY HTVSLLRSTS QKSIVAYTMS LGADSSIAYS NNTIAIPTNF 700 701
 SISITTEVMP VSMAKTSVDC NMYICGDSTE CANLLLQYGS FCTQLNRALS GIAAEQDRNT REVFAQVKQM
 770 771 YKTPTLKYFG GFNFSQLLPD PLKPTKRSFI EDLLFNKVTI ADAGFMKQYG ECLGDINARD

LICAQKFNGL 840 841 TVLPPLLTDD MIAAYTAALV SGTATAGWTF GAGAALQIPF AMQMAYRFNG
 IGVTONVLYE NQKQIANQFN 910 911 KAISQIQESL TTTSTALGKL QDVVNQNAQA LNTLVKQLSS
 NFGAISSVLN DILSRDLKVE AEVQIDRLIT 980 981 GRLQSLQTYV TQQLIRAAEI RASANLAATK
 MSECVLGQSK RVDFCGKGYH LMSFPQAAPH GVFLHVITYA 1050 1051 PSQERNFTTA PAICHEGKAY
 FPREGVVFVN GTSWFITQRN FFSPQIITTD NTFVSGNCDV VIGIINNTVY 1120
 1121 DPLQPELDSF KEELDKYFKN HTSPDVDLGD ISGINASVVN IQKEIDRLNE VAKNLNESLI
 DLQELGKYEQ 1190 1191 YIKWPWYVWL GFIAGLIAIV MVTILLCCMT SCCSCLKGAC SCGSCCKFDE
 DDSEFVLKGV KLHYT 1255

SEQ ID NO. 3 - The nucleotide sequence of SA10 fragment of the spike (S) gene of SARS CoV, clone 12 of 2774 strain

3087 taccacctta tgtccttccc acaagcagcc ccgcatggtg ttgtcttctt acatgtcacg
 tatgcgccat 3157 3158 cccaggagag gaacttcacc acagcgccag caatttgtca tgaaggcaaa
 gcatacttcc ctcgtgaagg 3227 3228 tgtttttggtg tttaatggca cttcttggtt tattacacag
 aggaacttct tttctccaca aataattact 3297 3298 acagacaata catttgtctc aggaattgt
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 ggcgacattt caggcattaa cgcttctgtc gtcaacattc aaaaagaaat tgaccgcctc 3507 3508
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 3577
 3578 tta
 3581

SEQ ID NO. 4 - The amino acid sequence of SA10 fragment of the spike (S) gene of SARS CoV, clone 12 of 2774 strain

1029 YHLSFPQAA PHGVFLHVT YAPSQERNFT TAPAICHEGK AYFPREGVVFV FNGTSWFITQ
 RNFFSPQIIT 1099 1100 TDNTFVSGNC DVVIGIINNT VYDPLQPELD SFKEELDKYF KNHTSPDVDL
 GDISGINASV VNIQKEIDRL 1169 1170 NEVAKNLNES LIDLQELGKY EQYI
 1192

SEQ ID NO. 5 - The amino acid sequence of the neutralizing fragment of the spike (S) gene of SARS CoV, clone 12 of 2774 strain

1055 RNFT TAPAICHEGK AYFPREGVVFV FNGTSWFITQ RNFFSPQIIT TDNTFVSGNC DVVIGIINNT
 VYDPLQ 1620 1621 PELDSFKEELDKYF KNHTSPDVDL GDISGINASV VNIQKEIDRL NEVAKNLNES
 LIDLQELGKY EQYI 1192

SEQ ID NO. 6 - The amino acid sequence of SA11 fragment of the spike (S) gene of SARS CoV, clone 12 of 2774 strain

1 MFIFLLFLTL TSGSDLDRCT TFDDVQAPNY TQHTSSMRGV YYPDEIFRSD TLYLTQDLSL
 PFYSNVTGFH 70
 71 TINHTFGNPV IPFKDGIYFA ATEKSNVVRG WVEGSTMNNK SQSVIIINNS TNVVIRACNF
 ELCDNPFFAV 140
 141 SKPMGTQTHT MIFDNAFNCT FEYISDAFSL DVSEKSGNFK HLREFVFKNK DGFLYVYKGY
 QPIDVVRDLP 210

211 SGFNTLKPIF KLPLGINITN FRAILTAFSP AQDIWGTSA A YFVGDLKPT TFMLKYDENG
TITDAVDCSQ 280

281 NPLAELKCSV KSFEIDKGIY QTSNFRVVPV G DVVRFPNIT NLCPFGEVFN ATKFPSVYAW
ERKKISNCVA 350 351 DYSVLYNSTV FSTFKCYGVS ATKLNLCFS NVYADSFVVK GDDVRQIAPG
QTGVIADYNY KLPDDFMGCV 420 421 LAWNTRNIDA TSTGNYNKY RYLRHGKLRP FERDISNVFP
SPDGKPCPTP ALNCYWPLND YGFYTTTGIG 490 491 YQPYRVVLS FELLNAPATV CGPKLSTDLI
KNQCVNFNFN GLTGTGVLTP SSKRFQPFQQ FGRDVSDFTD 560 561 SVRDPKTSEI LDISPCSFEG
VSVITPGTNA SSEVAVLYQD VNCTDVSTAI HADQLTPAWR IYSTGNNVFQ 630 631 TQAGCLIGAE
HVDTSYECDI PIGAGICASY HTVSLLRSTS QKSIVAYTMS LGADSSIAYS NNTIAIPTNF 700 701
SISITTEVMP VSMAKTSVDC NMYICGDSTE CANLLQYGS FCTQLNRALS GIAAEQDRNT REVFAQVKQM
770 771 YKTPTLKYFG GFNFSQILPD PLKPTKRSFI EDLLENKVTI ADAGFMKQYG ECLGDINARD
LICAQKFNGI 840 841 TVLPPLLTDD MIAAYTAALV SGTATAGWTF GAGAALQIPF AMQMAYRFNG
IGVTQNVLYE NQKQIANQFN 910 911 KAISQIQESL TTTSTALGKL QDVVNQNAQA LNTLVKQLSS
NFGAISSVLN DILSRDLKVE AEVQIDRLIT 980 981 GRLQSLQTYV TQQLIRAAEI RASANLAATK
MSECVLGQSK RVDFCGKGYH LMSFPQAAPH GVVELHVTYA 1050 1051 PSQERNFTTA PAICHEGKAY
FPREGVFVFN GTSWFITQRN FFSPQIITTD NTFVSGNCDV VIGIINNTVY 1120

1121 DPLQPELDSF KE

1132